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PTO/SB/21 (02-04) Approved for use through 07/31/2006. OMB 0651-0031

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der the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Application Number 10/723,809 Filing Date 11/26/2003 **TRANSMITTAL** First Named Inventor WEISSBACH **FORM** 1632 Art Unit (to be used for all correspondence after initial filing) **Examiner Name** Attorney Docket Number 6818-66 Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance communication to Technology Center (TC) Drawing(s) Fee Transmittal Form Appeal Communication to Board of Appeals and Interferences Licensing-related Papers Appeal Communication to TC Fee Attached (Appeal Notice, Brief, Reply Brief) Petition Amendment/Reply Petition to Convert to a Proprietary Information Provisional Application After Final Power of Attorney, Revocation Status Letter Change of Correspondence Address Affidavits/declaration(s) Other Enclosure(s) (please Identify below): **Terminal Disclaimer** Extension of Time Request Postcard Request for Refund Express Abandonment Request CD, Number of CD(s) Information Disclosure Statement Remarks No fees are believed due; however, please charge any deficienices to Deposit Acct No. 50-0951. Certified Copy of Priority Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Gregory A. Nelson Firm Akerman Senterfitt

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AUG 1 3 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Application of WEISSBACH et al.

Application No.:

10/723,809

Examiner:

Date Filed:

November 26, 2003

Group:

1632

For:

CATALYTIC ANTIOXIDANTS AND METHODS OF USE

CERTIFICATE UNDER 37 CFR 1.8(a)
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INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Pursuant to the Duty to Disclose under 37 C.F.R. §1.56, the references cited on the accompanying forms PTO/SB/08A and PTO/SB/08B are hereby brought to the attention of the Examiner for independent evaluation.

The submission of the listed documents is not intended as an admission that any such documents constitute prior art against the claims of the present application. Applicants do not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Applicants respectfully request that the listed documents be considered by the Examiner and made of record in the present application and that initialed copies of forms PTO/SB/08A and PTO/SB/08B be returned in accordance with MPEP §609.

Certification

This Statement is being filed within three months of the filing of this application and/or prior to the issuance of the first Office Action for the present application, and this paper is thus submitted in accordance with 37 CFR §1.97(b). In view of this certification, a fee is not required for consideration of these documents. Nevertheless, should a fee be deemed to be due by the Commissioner, such fee should be charged to Deposit Account No. 50-0951.

Date: 4-10-04

Docket No. 6818-66

Respectfully submitted,

Gregory A Nelson, Esq.

Reg. No. 30,577 Akerman Senterfitt

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Tel: 561-653-5000 Fax: 561-653-5333

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Substitute for form 1449/PTO

Sheet 1

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(Use as many sheets as necessary)

Complete if Known				
Application Number	10/723,809			
Filing Date	11/26/2003			
First Named Inventor	Weissbach			
Art Unit	1632			
Examiner Name	,			
Attorney Docket Number	6818-66			

U. S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ^{2 (# known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan Figures Appear		
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	Substitute for form 1449/PTO			Complete if Known			
300500	Substitute for form 1443/FTO		Application Number	10/723,809			
INF	ORMATION	DIS	CLOSURE	Filing Date	11/26/2003		
STATEMENT BY APPLICANT		First Named Inventor	Weissbach				
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Sheet	2	of	3	Attorney Docket Number	6818-66		

		NON PATENT LITERATURE DOCUMENTS	•
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Minetti, G., et al., "Reduction of Dabs-L-Methionine-dl Sulfoxide by Protein Methionine Sulfoxide Reductase from Polymorphonuclear Leukocytes: Stereospecificity towards the 1-Sulfoxide," Ital. J. Biochem 43, 273-283 (1994)	
		Grimaud, R., et al., "Repair of Oxidized Proteins," J. Biol. Chem. 276, 48915-48920 (2001)	
		Rahman, M., et al., "High Level Expression and Purification of Peptide Methionine Sulfoxide Reductase in <i>Escherichia Coli</i> ," Cellular & Molecular Biol. 38, 529-542 (1992)	
		Etienne, F., et al., "A Methionine Sulfoxide Reductase in <i>Escherichia coli</i> that Reduces the R Enantiomer of Methionine Sulfoxide," Biochem. & Biophys. Res. Comm. 300, 378-382 (2003)	
		Spector, D., et al., "New Membrane-associated and Soluble Peptide Methionine Sulfoxide Reductases in <i>Escherichia coli</i> ," Biochem. & Biophys. Res. Comm. 302, 284-289 (2003)	,
		Kita, Y., et al., "Enantioselective Total Synthesis of a Potent Antitumor Antibiotic, Fredericamycin A," J. Am. Chem. Soc. 123, 3214-3222 (2001)	
		Fukuyama, T., et al., "Stereocontrolled Synthesis of (-)-Hapalindole G," J. Am. Soc. 116, 3125-3126 (1994)	
		Conte, V., et al., "Asymmetric Oxidation of Thioethers. Enantioselective Synthesis of β-Hydroxysulfoxides by Direct Oxidation," Tetrahedron Lett. 30, 4859-4862 (1989)	
		O'Donnell, M., et al., "The Stereoselective Synthesis of α-Amino Acids by Phase- Transfer Catalysis," J. Am. Chem. Soc. 111, 2353-2355 (1989)	·
		Hartley, A., et al., "Complex I Inhibitors Induce Dose-Dependent Apoptosis in PC12 Cells: Relevance	

Examiner		Date	
Signature	.;	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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			-	Application Number	10/723,809	
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STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Weissbach	
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Sheet	3 .	of	3	Attorney Docket Number	6818-66	

Examiner	Cite	NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of	Т
Initials*	No.1	the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Rosen, D., et al., "Mutations in Cu/Zn Superoxide Dismutase Gene are Associated with Familial Amyotrophic Lateral Sclerosis," Natuer 362, 59-62 (1993)	
•		Weissbach, H., et al., "Peptide Methionine Sulfoxide Reductase: Structure, Mechanism of Action, and Biological Function," Archives of Biochem. & Biophys. vol. 397, no. 2, 172-178 (2002)	
		Moskovitz, J., et al., "Methionine Sulfoxide Reductase (MsrA) is a Regulator of Antioxidant Defense and Lifespan in Mammals," PNAS, vol. 98, no. 23, 12920-12925 (2001)	
		Ruan, H., et al., "High-quality Life Extension by the Enzyme Peptide Methionine Sulfoxide Reductase," PNAS, vol. 99, no. 5, 2748-2753 (2002)	
	,	Ejiri, S., et al., "The Purification of Methionine Sulfoxide Reductase from Escherichia coli, Anal. Biochem. 102, 393-398 (1980)	
-		Brot, N., et al., "Reduction of N-Acetyl Methionine Sulfoxide: A Simple Assay for Peptide Methionine Sulfoxide Reductase, Anal. Biochem., 122, 291-294 (1982)	
		Moskovitz, J., et al., "Cloning and Expression of a Mammalian Gene Involved in the Reduction of Methionine Sulfoxide Residues in Proteins, Proc. Natl. Acad. Sci., 93, 2095-2099 (1996)	

Examiner	Date	-
Signature ·	Considered	·

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